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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,949

09/18/2003

Uwe Schneider

9365

6525

27752

7590

08/15/2007

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION - WEST BLDG.
WINTON HILL BUSINESS CENTER - BOX 412
6250 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

MUSSER, BARBARA J

ART UNIT

PAPER NUMBER

1733

MAIL DATE

DELIVERY MODE

08/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,949

Applicant(s)

SCHNEIDER ET AL.

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 8-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roe et al.(U.S. Patent 5,776,121) in view of Sabee(U.S. Patent 4,968,313) and Frick(U.S. Patent 4,397,704).

Roe et al. discloses applying a stretched elastic(76) to the edge of a diaper, cutting the diaper to form side flaps, folding and bonding the side flaps onto the main portion of the diaper.(Figures 4 and 7; Col. 3, ll. 20-25; Col. 10, ll. 17-20) The reference does not disclose incrementally stretching the portion of the diaper having the elastic prior to folding it. Sabee discloses applying elastic to the edges of a diaper and incrementally stretching it as an alternative to applying a stretched elastic to the diaper.(Figure 12; 89; Col. 1, ll. 42-45) This greatly simplifies the imparting of elastic characteristics to diapers.(Col. 1, ll. 38-56; Col. 2, ll. 19-22) It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the diaper of Roe et al. by applying the elastic to the diaper and then incrementally stretching it as suggested by Sabee(Col. 2, ll. 19-22) since this would simplify the process of imparting elastic to the diaper instead of the use of the more complicated process of applying stretched elastic suggested by Roe et al.(Col. 10, ll. 17-20)

Regarding the limitation of bonding along all of the folded length, Roe et al. discloses forming folds which act to form upright barrier cuffs(Figure 5B) having an adhesive to join one portion of the diaper to another to form the cuffs. The reference indicates the bonding material is applied along a line connecting the ends of the cuts.(Col. 14, ll. 21-30) While the reference does not explicitly state the adhesive is along the entire length of the fold, since the adhesive effectively forms the barrier cuff by bonding the layers together so an upstanding portion is formed(Figure 5B), one in the art would appreciate that the adhesive extended the entire length of the fold since the upstanding portion would not be formed where the diaper was not bonded to itself. Additionally, when referring to the bonding of this portion of the diaper, the reference does not suggest that only a portion is bonded, indicating that the entire length is bonded.

Regarding the limitation of the edge fold having substantially uniform gathers, the uniformity of the gathers is directly related to the elastic. Frick discloses applying elastic to a web to provide uniform gathers(Col. 1, ll. 57) but does not indicate the concept of uniform gathers is new and novel, suggesting that forming uniform gathers is well-known. Those in the elastic and sewing arts understand that the uniformity of the gathers of the elastic is dependent on the uniformity of the stretching of the elastic during application and the uniformity of adhesive application, and such is extremely well-known in the elastic arts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the elastic of Roe et al. and Sabee have

uniform gathers since such is extremely well-known and conventional in the elastic arts as shown for example by Frick.(Col. 1, ll. 57)

Regarding claim 8, Roe et al. discloses the cuts can be curved, indicating the folding would form a curved folded portion.(Col. 12, ll. 50-51)

Regarding claim 9, Sabee discloses using corrugated teeth.(Figure 12; 89)

Regarding claim 10, the bonding can occur via adhesive.(Col. 14, ll. 28-30)

Regarding claims 11 and 12, the article can be a disposable diaper.(Abstract)

Regarding claim 13, since the elastic(59) is along the portion of the longitudinal edge between the side panels, the activation of said elastic would be performed along that same portion of the longitudinal edge.(Figure 4)

Regarding claim 14, the folding occurs at least between the side panels.(Figure 4)

Regarding claim 15, the bonding occurs between the side panels.(Figure 5A)

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roe et al., Sabee, and Frick as applied to claim 1 above, and further in view of Anderson et al.(U.S. Patent 6,605,172)

Sabee does not disclose the specifics of whether the side flaps are heated prior to or during the stretching process. Anderson et al. discloses that heating a web during the incremental stretching improves the liquid imperviousness of the web.(Col. 15, ll. 48-56) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the elastic and side flaps of Roe et al. and Sabee during the

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incremental stretching since this would improve the liquid imperviousness relative to stretching without heat.(Col. 15, ll. 48-56)

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roe et al., Sabee, Frick, and Anderson et al. as applied to claim 4 above, and further in view of Joest et al.(U.S. Patent 5,830,821) and Melius(U.S. Publication 2004/044322A1)

The references cited above do not disclose heating the edges of the garment prior to stretching it to form the gathers. Joest et al. discloses heating an article prior to stretching it.(Figure 1) Melius discloses forming an absorbent article wherein stretching a hot web can enhance the stretching.[0017] It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the garment of Joest et al. before corrugating(stretching) the edges since it is well-known and conventional in the arts to heat prior to stretching since this allows easier stretching as shown for example by Joest et al.(Figure 1) and as taught by Melius which teaches that stretching a hot web enhances the stretching process when forming elastic in an absorbent article.[0017]

5. Claims 1, 2, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klemp(U.S. Patent 5,536,350) in view of Sabee(U.S. Patent 4,968,313) and Frick.

Klemp discloses applying an elastic(28a) to the edge of a diaper, folding the edge, and bonding the entire folded portion to form an edge fold(30). The reference does not disclose incrementally stretching the portion of the diaper having the elastic prior to folding it. Sabee discloses applying elastic to the edges of a diaper and incrementally stretching it as an alternative to applying a stretched elastic to the

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diaper.(Figure 12; 89; Col. 1, ll. 42-45) This greatly simplifies the imparting of elastic characteristics to diapers.(Col. 1, ll. 38-56; Col. 2, ll. 19-22) It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the diaper of Klemp by applying the elastic to the diaper and then incrementally stretching it as suggested by Sabee(Col. 2, ll. 19-22) since this would simplify the process of imparting elastic to the diaper.

Regarding the limitation of the edge fold having substantially uniform gathers, the uniformity of the gathers is directly related to the elastic. Frick discloses applying elastic to a web to provide uniform gathers(Col. 1, ll. 57) but does not indicate the concept of uniform gathers is new and novel, suggesting that forming uniform gathers is well-known. Those in the elastic and sewing arts understand that the uniformity of the gathers of the elastic is dependent on the uniformity of the stretching of the elastic during application and the uniformity of adhesive application, and such is extremely well-known in the elastic arts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the elastic of Klemp et al. and Sabee have uniform gathers since such is extremely well-known and conventional in the elastic arts as shown for example by Frick.(Col. 1, ll. 57)

Regarding claim 9, Sabee discloses using corrugated teeth.(Figure 12; 89)

Regarding claim 10, the bonding can occur via adhesive.(30)

Regarding claims 11 and 12, the article can be a disposable diaper.(Abstract)

Regarding claim 13, since the elastic(28) is along the portion of the longitudinal edge between the side panels, the activation of said elastic would be performed along that same portion of the longitudinal edge.(Figure 1)

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klemp, Sabee, and Frick as applied to claim 1 above, and further in view of Anderson et al.(U.S. Patent 6,605,172)

Sabee does not disclose the specifics of whether the side flaps are heated prior to or during the stretching process. Anderson et al. discloses that heating a web during the incremental stretching improves the liquid imperviousness of the web.(Col. 15, ll. 48-56) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the elastic and side flaps of Klemp and Sabee during the incremental stretching since this would improve the liquid imperviousness relative to stretching without heat.(Col. 15, ll. 48-56)

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klemp, Sabee, Frick, and Anderson et al. as applied to claim 4 above, and further in view of Joest et al.(U.S. Patent 5,830,821) and Melius(U.S. Publication 2004/044322A1)

The references cited above do not disclose heating the edges of the garment prior to stretching it to form the gathers. Joest et al. discloses heating an article prior to stretching it.(Figure 1) Melius discloses forming an absorbent article wherein stretching a hot web can enhance the stretching.[0017] It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the garment of Joest et al. before corrugating(stretching) the edges since it is well-known and conventional in

the arts to heat prior to stretching since this allows easier stretching as shown for example by Joest et al.(Figure 1) and as taught by Melius which teaches that stretching a hot web enhances the stretching process when forming elastic in an absorbent article.[0017]

Response to Arguments

8. Applicant's arguments filed 6/22/07 have been fully considered but they are not persuasive.

Regarding applicant's argument that the references do not disclose forming an edge fold with substantially uniform gathers, the uniform gathers are due to the uniform gathers of the elastic. Those in the elastic and sewing arts understand that the uniformity of the gathers of the elastic is dependent on the uniformity of the stretching of the elastic during application and the uniformity of adhesive application, and such is extremely well-known in the elastic arts. This concept is so well-known that it is understood and not explicitly stated normally. Any sewing book showing how to apply elastic would show stretching it and then stitching the stretched elastic down. This causes an even stretch and an even stitch length which results in a uniform gather. An examination of the attachment of elastic to most garments made would show a uniform gather. A uniform gather is generally desired to prevent bunching of the fabric in certain locations or uneven appearance of the final product.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


BJM


RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700